

16/12/2015 الی، سہ

ع. م

سہ 8

problem 1 - sheet 5 :-

$$S \rightarrow NTS$$

terminals : 1, 2, a, b

$$N \rightarrow 112$$

$$T \rightarrow A|B \Rightarrow ((1/2)(a/b)^+)^+$$

$$A \rightarrow a|Ta$$

$$B \rightarrow b|Tb$$

problem 2 - sheet 5 :-

$$\textcircled{1} L = \{a^{2n}b^m a^{3n}, n, m \geq 0\}$$

$$S \rightarrow aaSaaa|T$$

$$T \rightarrow bT|\epsilon$$

$$\text{OR } S \rightarrow aaSaa|T|\epsilon$$

$$T \rightarrow b|bT$$

$$n, m = 0 \rightarrow \epsilon$$

$$n = 0 \rightarrow b, bbbb \dots$$

$$m = 0 \rightarrow aa aaa$$

$$n = 1, m = 1 \rightarrow aabaaa$$

$$\textcircled{2} S \rightarrow (S)$$

$$\textcircled{3} a, b, aa, bb, b_b, a_a$$

$$S \rightarrow b|a|aXa|bXb$$

$$X \rightarrow aX|bX|\epsilon$$

Quiz and midterm Solution
are uploaded